FUNCTIONAL PRODUCTS INC.
Innovative Chemistry for Lubricants

Technical Data Sheet

FUNCTIONAL GA-533
Ecolabel Industrial Gear Oil Package

APPLICATION:

FUNCTIONAL GA-533 is a multifunctional package optimized for biobased or biodegradable EP gear oil lubricants meeting European Ecolabel standards for biodegradation and aquatic toxicity.

FUNCTIONAL GA-533 also works as an effective additive for other EP lubricants including rock drill oils, open gear lubricants, and more.

COMPOSITION:

FUNCTIONAL GA-533 does not contain phosphates, halogens, or heavy metals.

Typical Properties	
Appearance	Yellow Liquid
Color (ASTM D1500)	1.5
Odor	Mild
Specific Gravity	1.04
Lbs. per Gallon	8.7
Flash Point (ASTM D92)	200°C (392°F)
Elemental Analysis	24.8% Sulfur, 0.06% Calcium
European Ecolabel Ratings	8% A, 90% C / 100% D
Biobased Content	8-9 wt%
Performance (4.0wt% in ISO 150 canola with viscosity modifier + 0.1% DF-500)	
EP Weld Load, D2783	315
Last Non-Seizure Load, D2783	126
Load Wear Index, D2783	57
Falex EP Load, D3233A	3263
Turbine Oil Rust, D665A & D665B	Pass & Pass
Foam Sequence I, D892	0
Copper Corrosion, D130, 3hrs, 100C	1a
Demulsibility @ 82C, D1401	40/40/0 (30)

TREATMENT LEVEL:

The recommended treatment level of **FUNCTIONAL GA-533** is 2-4wt% in ester-based formulations using viscosity modifier and tackifier.

HANDLING:

Store in a cool, dry area. Review the current Safety Data Sheet before use and use proper protective equipment. **FUNCTIONAL GA-533** provides no hazards at recommended treat in a formulation.